

Notice of Allowability

Application No.

10/735,285

Applicant(s)

AKOPIAN ET AL.

Examiner

Art Unit

Guy J. Lamarre

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/12/03.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 4/02/04 - 5/12/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.



Guy J. Lamarre, P.E.
Primary Examiner

Reasons For Allowance

* The Examiner has considered the Applicant's IDS of 4/02/04 and 5/12/05. Applicant shall submit references of IDS of 4/02/04 on appropriate Form PTO-1449 in response to present office action.

* Pursuant to 35 USC 131, **Claims 1-14** are presented for examination.

1. **Claims 1-14** are allowable over the prior art.

1.1 The following is an Examiner's statement of reasons for the indication of allowable subject matter: the prior art is exemplified by (US Patent No. 5,818,868) to **Gaudenzi et al.** and (US Patent No. 6,249,542) to **Kohli et al.**

Gaudenzi et al. discloses 'direct sequence code division multiple access (DSCDMA) mobile communications system wherein 'code acquisition and detection circuit includes a code adapted filter for delivering correlated samples of the incoming signal. Means process the samples in a noncoherent manner and deliver consecutive samples, then means evaluate the average of the components of the samples within a sliding (smoothing) window of programmable width, and finally means evaluate the maximum value of the groups of significant samples selected. A generator of code replicas generates replicas of the code in synchronism with the estimated start of the code of the received useful signal.'

Gaudenzi et al. further discloses that 'the groups of samples $Z(h)$ are next evaluated in an evaluation circuit 16 whose function is to deliver an indication $\Delta(h)$ of the provisional value of the phase shift of the code in respect of the subsequent demodulation, and to deliver the maximum value of the L groups of significant samples. A detection circuit 17 next compares this maximum value with an autoadaptive threshold $SATH$ generated locally by multiplying at 18 the average of the samples by a multiplication factor Λ and produces the signal presence flag SP when the aforesaid maximum value exceeds the threshold $SATH$. The provisional value $\Delta(h)$ of the phase shift of the code is used in a code generator 19 to synchronize the generation of the replicas $C_{sub.p}$ and $C_{sub.q}$ of the code. As the

case may be, as represented in FIG. 3, the acquisition and detection circuit also comprises a data unspreader circuit 20 which selects the correlation samples relevant to the provisional value $\Delta(h)$ of the code phase from the code matched filter output.'

Kohli et al. discloses a communications system comprising a 'spread spectrum receiver which operates by tracking signals received from a spread spectrum transmitter by correlation with a local code replica at a first code delay, detecting trackable signals at code delays not adjacent the first code delay, and comparing the tracked and trackable signals to control the receiver.'

Kohli et al. further discloses that 'Direct path correlation function 226, in the center of the figure, is the result of correlating a satellite signal received along a direct, line of sight path in the absence of multipath signal(s), with a replica of the C/A code modulation then present on the direct path signal. The peak 230 of direct path correlation function 226 is shown at the origin to represent the actual time of arrival or zero code phase. In practice, this point may be somewhat offset due to filtering and other biases. Peak 230 will be taken as the punctual code phase, that is, the time of arrival of the PN Code group from a particular satellite.'

However, these references do not teach or suggest the combination of claim elements described in **Claims 1-14**.

1.2 Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

* Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (571) 273-8300 for all formal communications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (571) 272-3826. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3609.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Guy J. Lamarre, P.E.
Primary Examiner
6/9/2006
